

TOBACCO INDUSTRY RESEARCH COMMITTEE
150 EAST FORTY SECOND STREET NEW YORK 17, N.Y.

6. Budget Plan:

Salaries	\$1370.00
Expendable Supplies	27.00
Application For Research Grant:	Social Security
Overhead	Workers' C.I.
Other	
	Total

Date: April 2, 1957

17. Name of Investigator: R. H. Higdon, M.D.

22. Title: Titles and Staff Available: Professor of Pathology "Director," Laboratory of Experimental Pathology" to work on this project.

3. Institution: University of Texas Medical Branch
& Address: Galveston, Texas

4. Project or Subject:

9. Additional Requirements: Name

Effect of Tobacco Tar on Respiratory Tract of the Duck.

5. Detailed Plan of Procedure (Use reverse side if additional space is needed): (or sources of supply):

The U.S. Public Health Service is continuing for two years their great Tobacco tar will be suspended in mineral oil and 0.5 cc. of this solution will be put through the external larynx of the duck daily for varying periods of time. At different times ducks so treated will be sacrificed and the trachea will be examined under ultra violet light for fluorescent substances and then sections will be taken for histologic study.

The above techniques have been used for a year so we are familiar with the routine. Only at this time of year will it be possible to follow the problem of tumor formation following methylicholanthrene.

One of the most important points I would like to follow would be to determine how long fluorescent material can be demonstrated in the trachea of the duck following dissemination of tobacco tar. Methylcholanthrene disappears rapidly from the trachea. I would like to see what happens to tobacco tar in the trachea of these birds. Apparently some chemical change occurs with methylcholanthrene.

The lungs from the ducks would be followed in view of the fact that preliminary observations have shown the presence of black, granular material that must be tobacco tar since we have observed it only in ducks receiving tobacco tar.

Our studies so far have shown that there is no problem in putting as much as 0.5 cc. of mineral oil daily into the trachea; however, the ducks will show evidence of nicotine poisoning if too much tobacco tar is given.

Business Office of the Institution

1003540871

TOBACCO INDUSTRY RESEARCH COMMITTEE

150 EAST FORTY SECOND STREET NEW YORK 17, N.Y.

6. Budget Plan:	Salaries	3000.00
	Expendable Supplies	1200.00
	Applicable Taxes	90.00
	Social security	688.50
	Workmen's C.I.	17%
	Overhead	300.00
	Other	
	Total	5278.50

Date: April 2, 1957

7. Anticipated Duration of Work: 2 years

8. Facilities and Staff Available: Laboratory of Experimental Pathology
Present staff adequate to carry on this problem9. Institution: Laboratory of Experimental Pathology
Address: 150 E. 42nd Street, New York, N.Y.

10. Rights or Subject

9. Additional Requirements: None

After work of Research Tar by Department of the Lung.

10. Additional Information (Including relation of work to other projects and other sources of supply):

The U.S. Public Health Service is continuing for two years their grant for the study of the effect of methylcholanthrene on the tissues of the duck. We are beginning the study of the effect of methylcholanthrene on the gastrointestinal tract of the duck. It will be important to know whether the squamous epithelial cells in the esophagus will react to methylcholanthrene the same as will the cells in the skin of the body, web of the foot, and the trachea.

The epithelium in the trachea is columnar. The duck is nicely suited for the study of this type of epithelium in the trachea. We will be able to follow the problem of tumor formation following metaplasia.

The normal ducks and those given only mineral oil will serve as controls in the experiments where methylcholanthrene is studied and also for the experiments where tobacco tar is put into the trachea. We plan to have 100 tracheas from normal ducks and 100 tracheas from the mineral oil control experiments.

10. The results of the work will be submitted in view of the fact that preliminary observations have shown that the trachea is a good organ to study the effects of tobacco tar on the lungs. Signature: /s/ R. H. Rigdon

Director of Project

11. The results of the work will show that there is no problem in relation to smoke and tar of tobacco and oil in the lungs. However, the lungs will show changes of all kinds probably as the result of tobacco and oil.

/s/ E. D. Walker
Business Officer of the Institution

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